



**Federal Aviation
Administration**

NOTAM Event Encoding

Digital NOTAM Submission Working Group

December 5, 2007

Tony Rubiera (CNAC, for AJR-32)

System Operations - Airspace and AIM Division

Topics

- **Event Hierarchy for NOTAMs**
- **Data Used:**
 - D NOTAM Categorization (44k NOTAMs)
 - Q Code Categorization (44k NOTAMs)
 - Combined Categorization (110k NOTAMs)



Event Hierarchy

- **Event Categories (e.g. Runway)**
 - Event Sub-categories (e.g. Closed)
 - Logic for conditions (e.g. Aircraft over specified wingspan)
 - Reasons (we closed the runway because there are personnel and equipment working (PAEW) on it)
 - Warnings (beware of a problem you may encounter)
 - Hazards (something bad that could happen if you ignore this NOTAM)
 - Reference to other events that are affected by this safety condition



!GNV 10/184 68J 16 FIRST 250 CLSD

NOTAM Header

GNV

Enter New NOTAM
Revise NOTAM
Cancel NOTAM

Author Sign In
Author Sign Out

System generates a reference number and points to selection of affected facility

GNV
68J

Airspace
Airport Communications
Airport Radar
Airport Facilities
Airport Services
Lights (Including ALS)
NAVAIDs (Including ILS)
Obstacles
Procedures and Navigation
Routing
Runways (Complete)
Runway Ends
Runway Segments
Taxiways and Movement Areas

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Categories for D NOTAM Re-alignment

Keyword	NOTAM Example
RWY	RWY 3/21 CLSD
TWY	TWY F LGTS OTS
RAMP	RAMP TERMINAL EAST SIDE CONSTRUCTION
APRON	APRON SW TWY C NEAR HANGARS CLSD
AD	AD ABN OTS
OBST	OBST TOWER 283 (246 AGL) 2.2 S LGTS OTS (ASR 1065881)
NAV	NAV VOR OTS
COM	COM ATIS OTS
SVC	SVC FUEL UNAVBL TIL 0707291600
AIRSPACE	AIRSPACE AIRSHOW ACFT 5000/BLW 5 NMR AIRPORT AVOIDANCE ADZD WEF 0707152000-0707152200

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Categories based on content model

NOTAMs Data Model (NDM)

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Facilities and Services	SVC, AD	QF
Lights	In other categories	QL
NAVAIDs	NAV	QN, QI
Obstacles	OBST	QO
Procedures and Navigation	In FDC NOTAMs, UAR	QP
Routing	In FDC NOTAMs	QS
Runways	RWY	QM
Taxiways and Areas	TWY, RAMP, APRON	QM

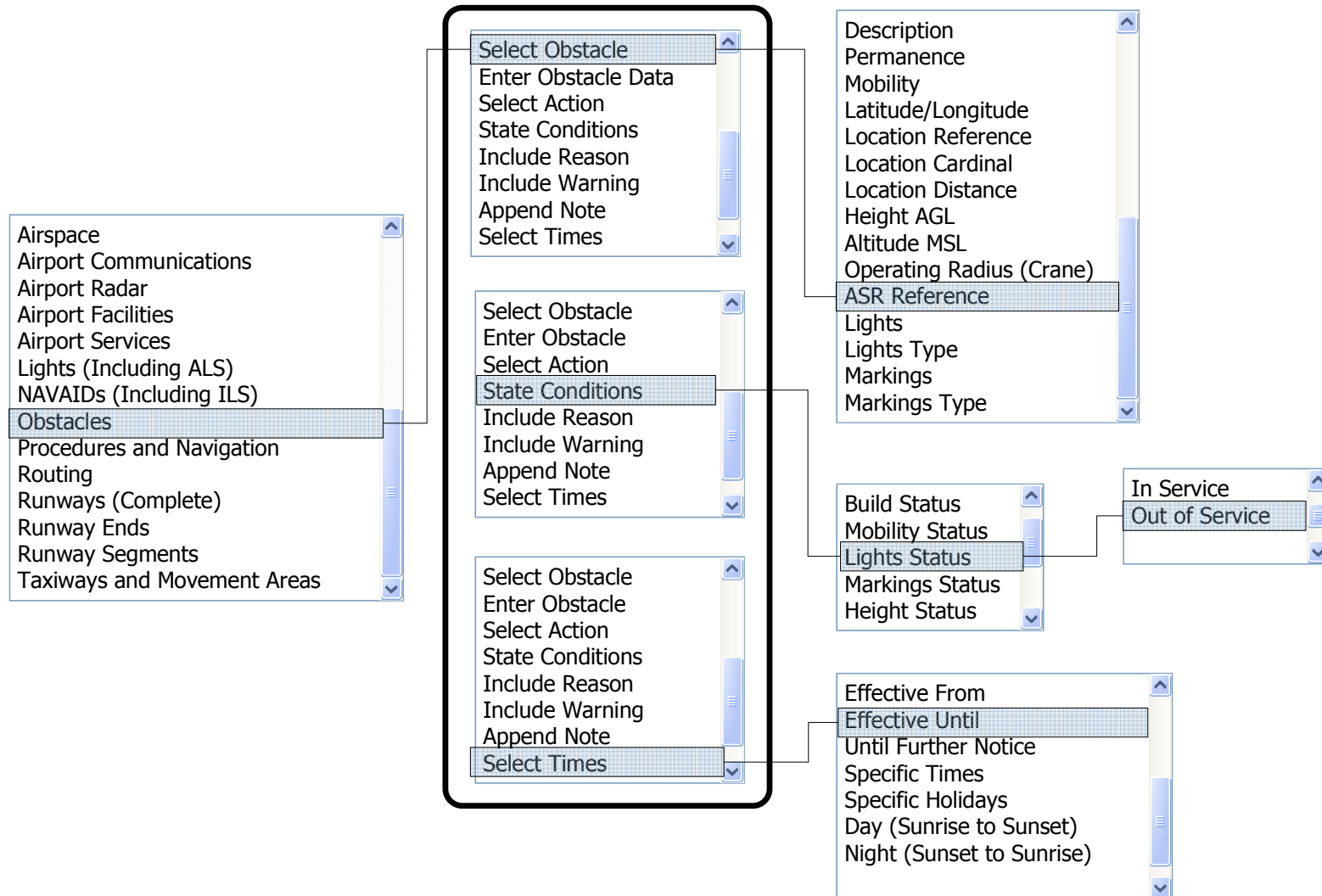
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ISLC 09/031 SLC TOWER 5461 (252 AGL) .30 ESE LGTS OTS (ASR 1043494) TIL 709280212



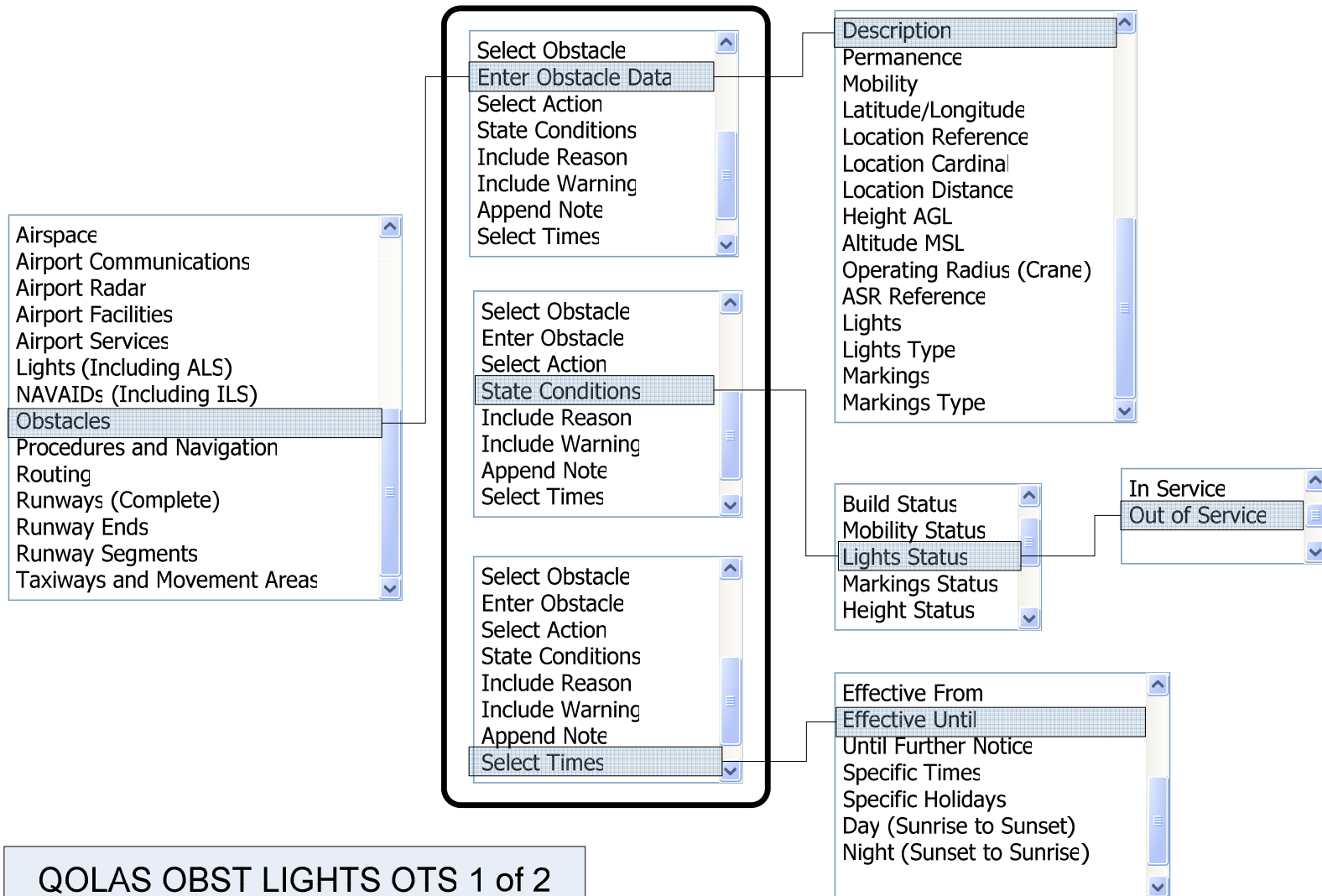
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PSF 08/018 PSF TOWER 1460 (UNKN AGL) 1 36E LGTS OTS (ASR UNKN) TIL709111600



QOLAS OBST LIGHTS OTS 1 of 2

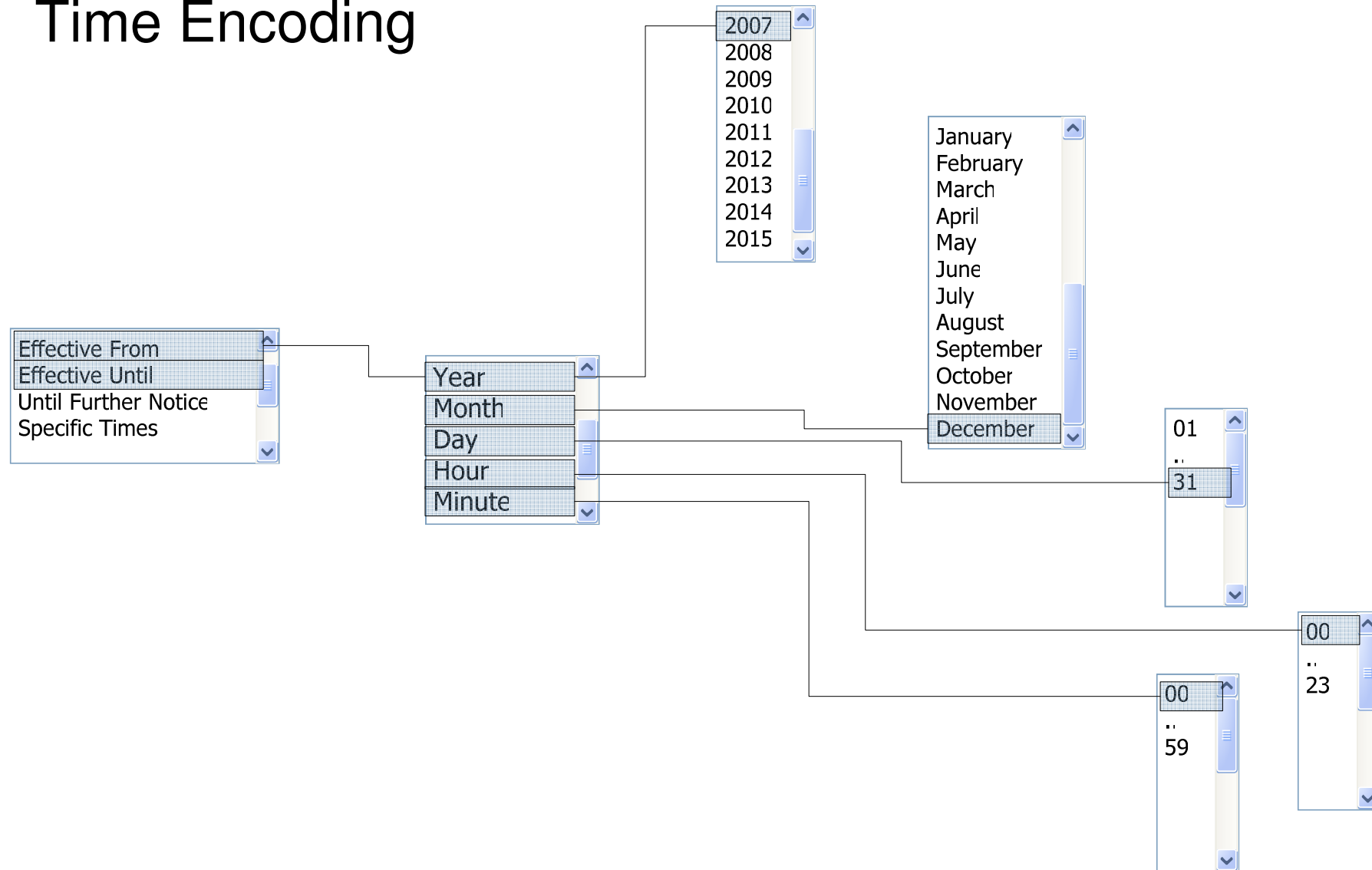
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Time Encoding



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!PSF 08/018 PSF TOWER 1460 (UNKN AGL) 1.36 E LGTS OTS (ASR UNKN) TIL709111600

<div>Select Obstacle</div> <div>Enter Obstacle Data</div> <div>Select Action</div> <div>State Conditions</div> <div>Include Reason</div> <div>Include Warning</div> <div>Append Note</div> <div>Select Times</div>	Description	Tower	Permanent
	Permanence	Crane	
	Mobility	Transmission Line	Stationary
	Latitude/Longitude	Building	
	Location Reference	Airport	Unknown
	Location Cardinal	Other	
	Location Distance	East	
	Height AGL	1.36 NM	
	Altitude MSL	Enter	
	Operating Radius (Crane)	Unknown	
	ASR Reference	Enter	1460
	Lights	Unknown	
	Lights Type	Enter	
	Markings	Unknown	
Markings Type	Yes		
	No		
	Unknown		
	Yes		
	No		
	Unknown		

QOLAS OBST LIGHTS OTS 2 of 2

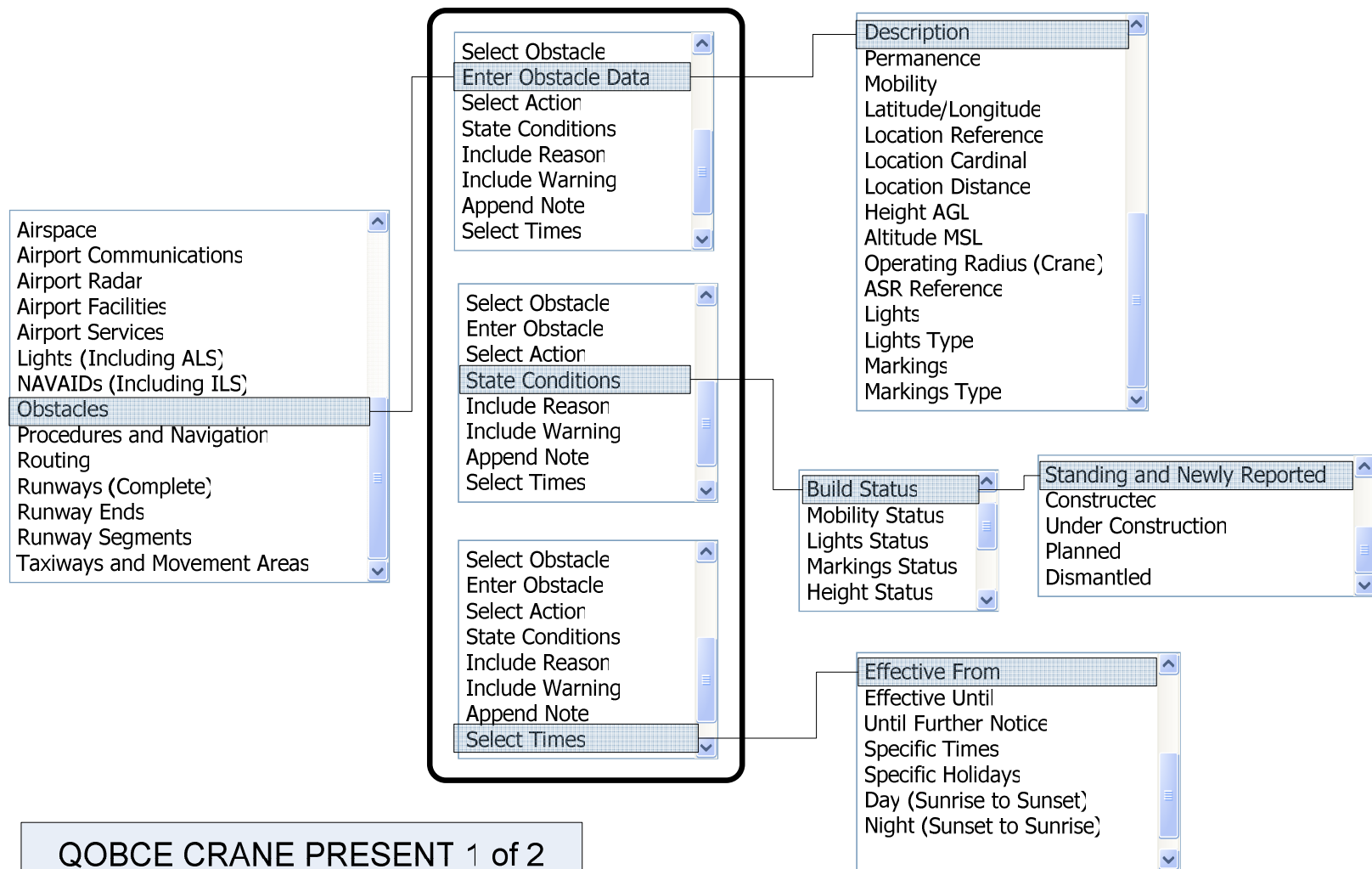
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HSV 09/033 HSV CRANE 200 AGL 300FT SE 18R THR WEF 070922Z100



QOBCE CRANE PRESENT 1 of 2

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HSV 09/033 HSV CRANE 200 AGL 3000FT SE 18R THR WEF 0709222100

<div>Select Obstacle</div> <div>Enter Obstacle Data</div> <div>Select Action</div> <div>State Conditions</div> <div>Include Reason</div> <div>Include Warning</div> <div>Append Note</div> <div>Select Times</div>	Description	Tower	Permanent	Stationary	Runway End	Runway End Threshold	200	18L	18R	36L	36R
	Permanence	Crane									
	Mobility	Transmission Line									
	Latitude/Longitude	Building									
	Location Reference		Airport								
	Location Cardinal		Other								
	Location Distance		Southeast								
	Height AGL		3000 FT								
	Altitude MSL										
	Operating Radius (Crane)		Enter								
	ASR Reference		Unknown								
	Lights		Enter								
	Lights Type		Unknown								
	Markings		Enter								
Markings Type		Unknown									
		Yes									
		Nc									
		Unknown									
		Yes									
		Nc									
		Unknown									

QOLAS OBST LIGHTS OTS 2 of 2

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Categories based on content model

NOTAMs Data Model (NDM)

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Facilities and Services	SVC, AD	QF
Lights	In other categories	QL
NAVAIDs	NAV	QN, QI
Obstacles	OBST	QO
Procedures and Navigation	In FDC NOTAMs, UAR	QP
Routing	In FDC NOTAMs	QS
Runways	RWY	QM
Taxiways and Areas	TWY, RAMP, APRON	QM

NOTAM Event Encoding

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EWR 09/067 EWR 11/29 CLSD WEF 0709171600

Airspace
Airport Communications
Airport Radar
Airport Facilities
Airport Services
Lights (Including ALS)
NAVAIDs (Including ILS)
Obstacles
Procedures and Navigation
Routing
Runways (Complete)
Runway Ends
Runway Segments
Taxiways and Movement Areas

Select Runway
Select Action
State Conditions
Include Reason
Include Warning
Append Note
Select Times

Select Runway
Select Action
State Conditions
Include Reason
Include Warning
Append Note
Select Times

Select Runway
Select Action
State Conditions
Include Reason
Include Warning
Append Note
Select Times

11/29
4L/22R
4R/22L

Closed
Open
Commissioned
Decommissioned
Reopen

Effective From
Effective Until
Until Further Notice
Specific Times
Specific Holidays
Day (Sunrise to Sunset)
Night (Sunset to Sunrise)

QMRLC RUNWAY

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EWR 09/016 EWR 11 CLSD TKOF

Airspace
Airport Communications
Airport Radar
Airport Facilities
Airport Services
Lights (Including ALS)
NAVAIDs (Including ILS)
Obstacles
Procedures and Navigation
Routing
Runways (Complete)
Runway Ends
Runway Segments
Taxiways and Movement Areas

Select Runway End
Select Action
State Conditions
Include Reason
Include Warning
Append Note
Select Times

Select Runway End
Select Action
State Conditions
Include Reason
Include Warning
Append Note
Select Times

Select Runway End
Select Action
State Conditions
Include Reason
Include Warning
Append Note
Select Times

11
22L
22R
29
4L
4R

Closed
Change to Threshold
Change to Declared Distances

Operation Type
Aircraft Type
Flight Type
Surface Condition

Landing
Takeoff
Touch and Go Landings
Practice Low Approach
Training

QMRLC RUNWAY END

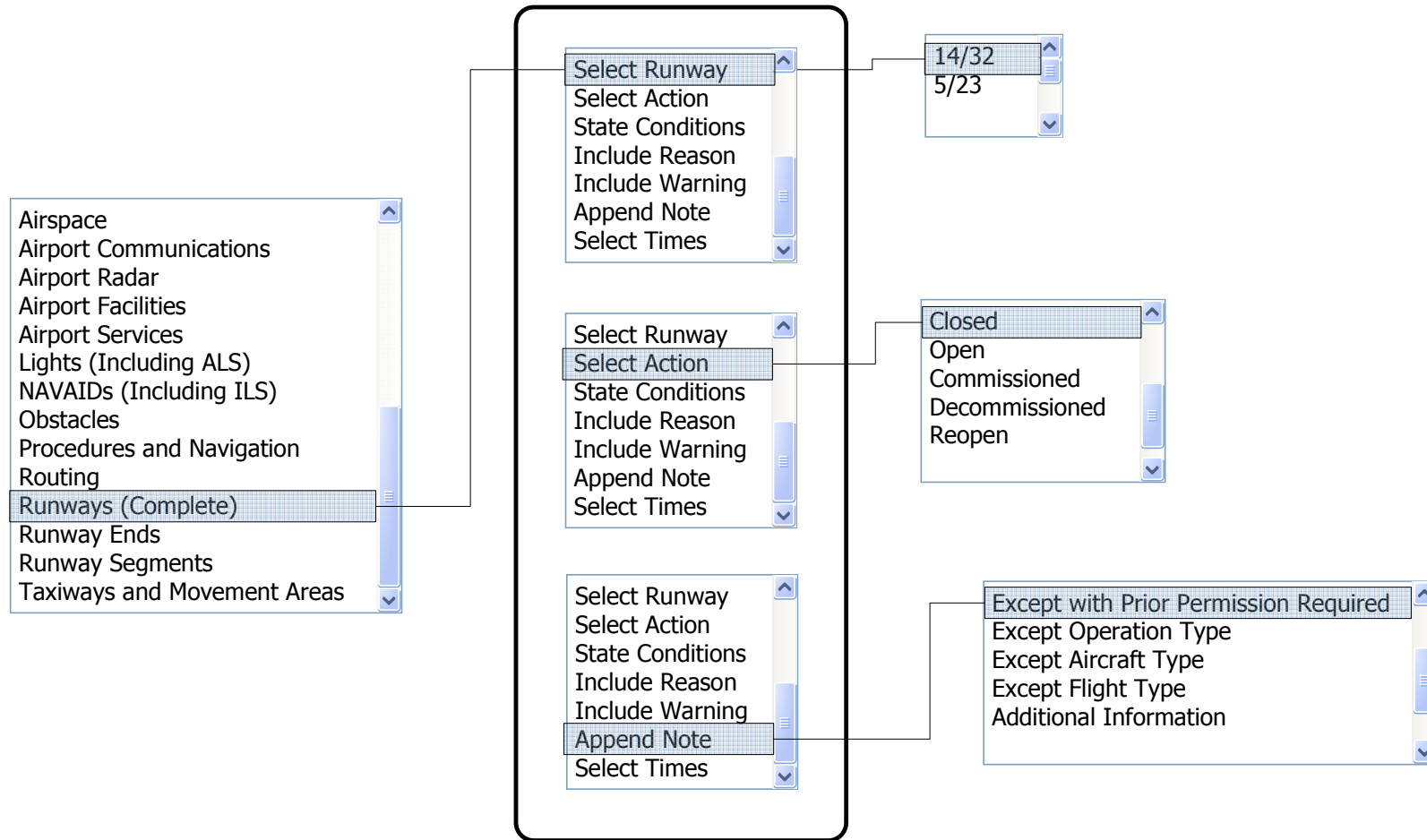
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!BUF 09/105 BUF 14/32 CLSD EXC 20 MIN PPR WEF 0709240330-0709240930



QMRLC RUNWAY

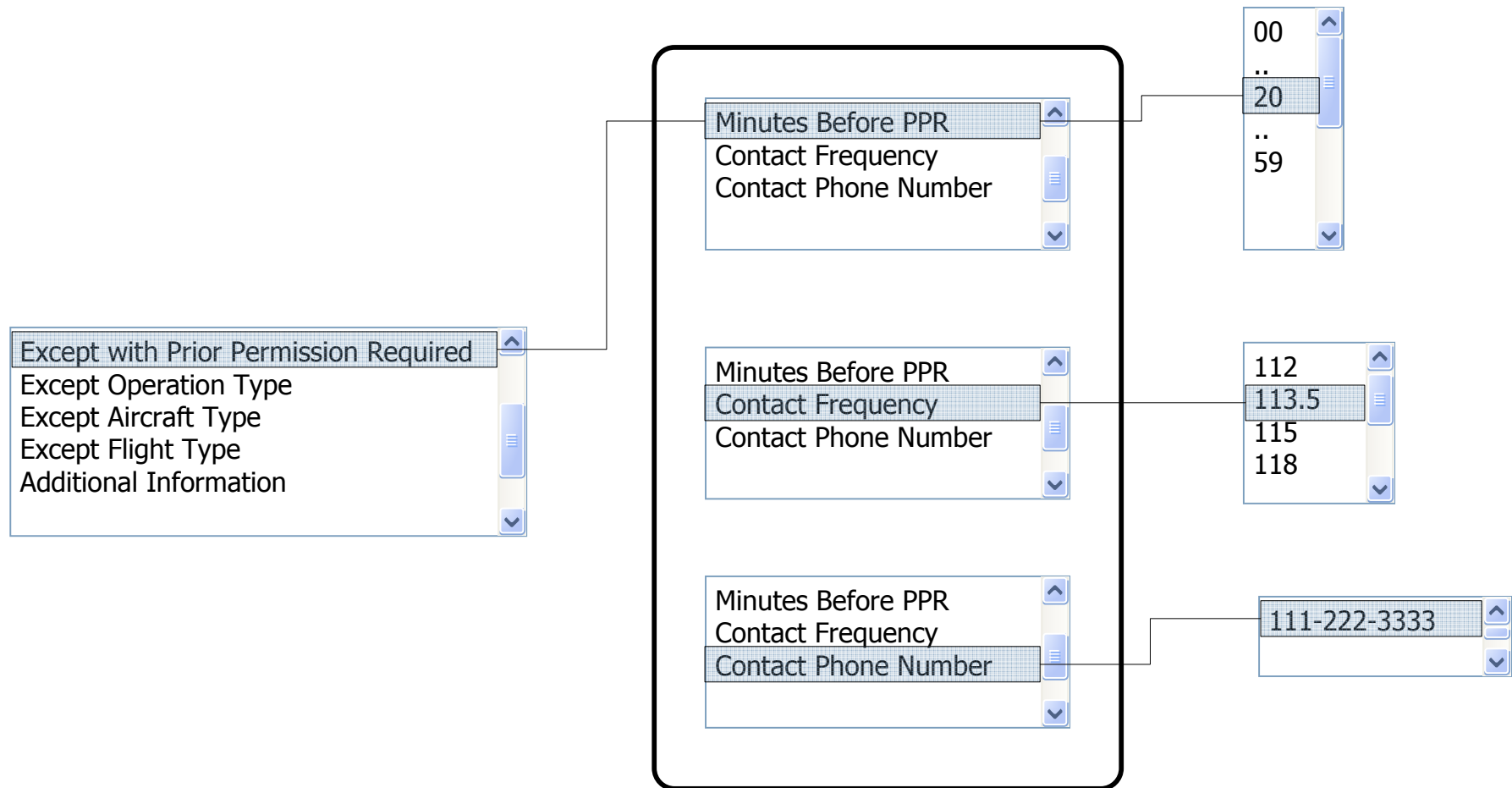
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Prior Permission Required Exception



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- Airspace
- Airport Communications
- Airport Radar
- Airport Facilities
- Airport Services
- Lights (Including ALS)
- NAVAIDs (Including ILS)
- Obstacles
- Procedures and Navigation
- Routing
- Runways (Complete)
- Runway Ends
- Runway Segments**
- Taxiways and Movement Areas

- Select Runway Segment**
- Select Action
- State Conditions
- Include Reason
- Include Warning
- Append Note
- Select Times

- From Outer Edge of Runway End 12
- From Outer Edge of Runway End 18
- From Outer Edge of Runway End 30**
- From Outer Edge of Runway End 36
- Within one runway end
- Overlaps more than one runway end

Combined QM NOTAM

B3847/07 NOTAMN
 Q) CZVR/QMDCH/IV/NBO/A /000/999/4942N12453W005
 A) CYQQ
 B) 0709161600
 C) 0709161830
 E) FIRST 3000 FT RWY 30 CLSD.THR 30 DISPLACED
 3000 FT MARKED BY RED/GREEN REFLECTOR
 CONES. DECLARED DIST: RWY 12 TORA 7000 TODA
 7000 ASDA 7000 LDA 7000 RWY 30 TORA 7000 TODA
 8000 ASDA 7000 LDA 7000

Select Action
State Length in Feet

3000

Select Action
State Length in Feet

Closed
Changes Caused

Select Action
State Length in Feet

Closed
Changes Caused

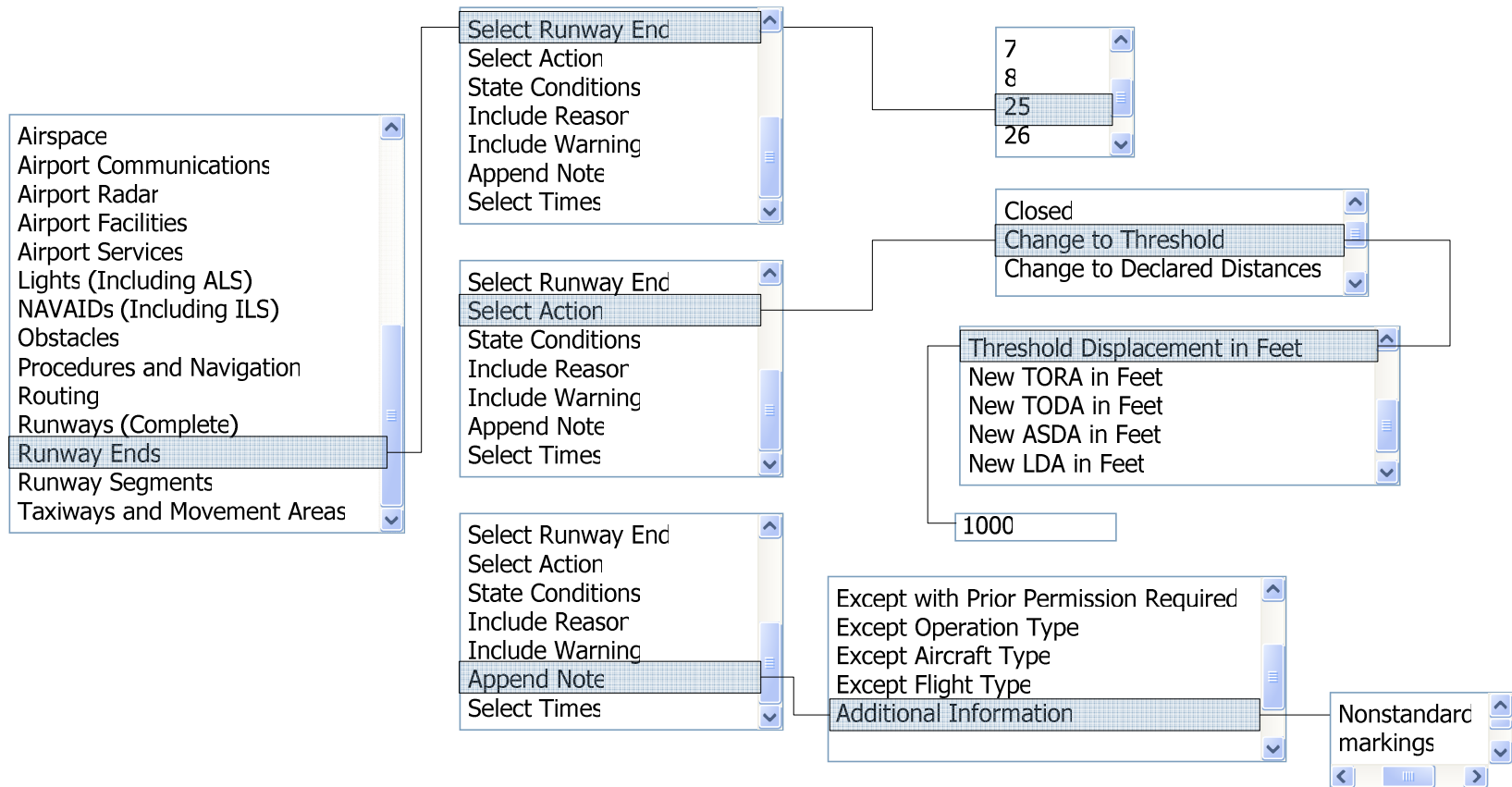
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EGE 09/004 EGE 25 THR DSPLCD 1000 NONSTD MARKING TIL 0709041300



QMTCM RUNWAY END DISPLACED THRESHOLD

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Taxiways and Areas	TWY, RAMP, APRON	QM

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!EWR 09/055 EWR 22R ILS GP OTS WEF 0709141300

The interface displays a NOTAM entry form. On the left is a vertical menu with the following items: Airspace, Airport Communications, Airport Radar, Airport Facilities, Airport Services, Lights (Including ALS), **NAVAIDs (Including ILS)**, Obstacles, Procedures and Navigation, Routing, Runways (Complete), Runway Ends, Runway Segments, and Taxiways and Movement Areas. The central area contains three identical panels, each with a dropdown menu showing: Select NAVAID, Select Action, State Conditions, Include Reason, Include Warning, Append Note, and Select Times. The top panel has 'Select NAVAID' selected, the middle panel has 'State Conditions' selected, and the bottom panel has 'Select Times' selected. To the right of the central panels are three detail panels. The top panel is a dropdown menu with options: VORTAC, NDB, DF, TACAN, VOR, DME, VOR/DME, and **ILS**. The middle panel is a dropdown menu with options: In Service, **Out of Service**, Unmonitored, Unserviceable, Commissioned, Decommissioned, Unusable, Unreliable, and Not Available. The bottom panel is a dropdown menu with options: **Effective From**, Effective Until, Until Further Notice, Specific Times, Specific Holidays, Day (Sunrise to Sunset), and Night (Sunset to Sunrise).

QICAS ILS GP OTS 1 of 2

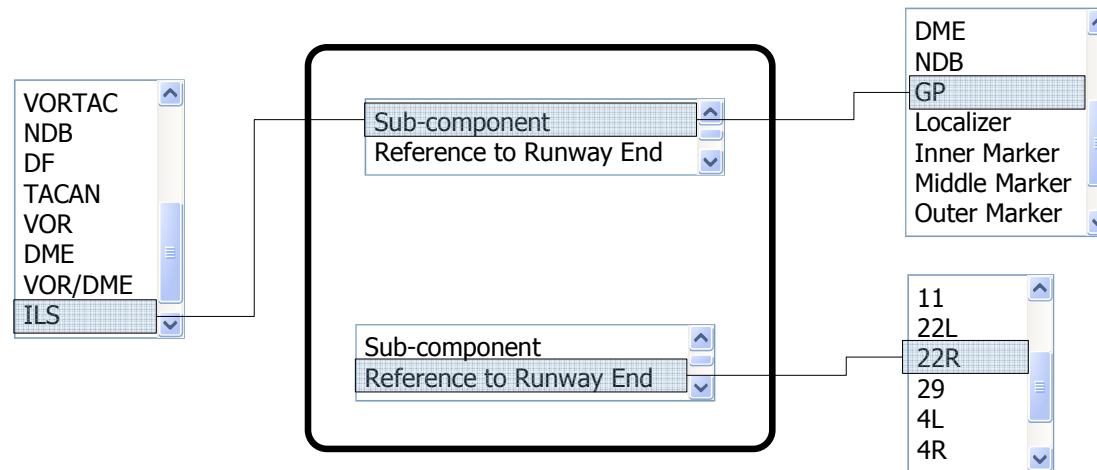
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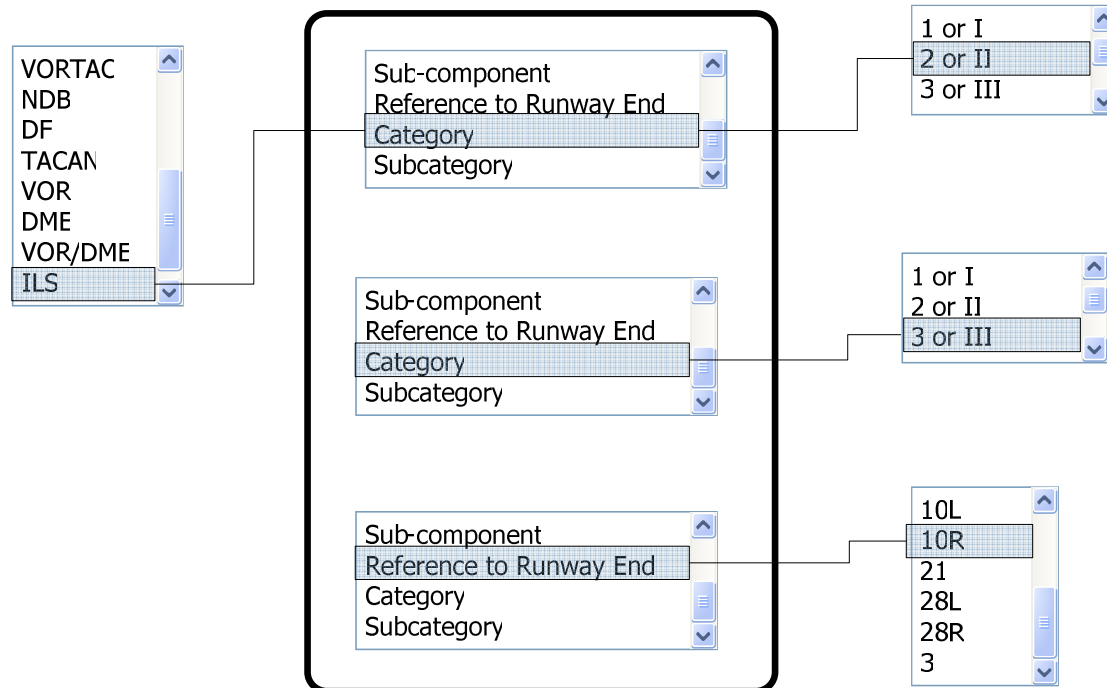
!EWR 09/055 EWR 22R ILS GP OTS WEF 0709141300



QICAS ILS GP OTS 2 of 2



PDX 09/034 PDX 10R ILS CAT 2/3 NA WEF 0709191600-0709192200



QITAU ILS CAT OTS

NOTAM Event Encoding

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!GNV 09/047 GNV 29 WYND S NDB/ILS LO OTS WEF 0709051100-0709051700

The screenshot displays a NOTAM encoding software interface. On the left is a vertical menu with the following items: Airspace, Airport Communications, Airport Radar, Airport Facilities, Airport Services, Lights (Including ALS), **NAVAIDs (Including ILS)**, Obstacles, Procedures and Navigation, Routing, Runways (Complete), Runway Ends, Runway Segments, and Taxiways and Movement Areas. The 'NAVAIDs (Including ILS)' item is selected. The main area contains three identical panels, each with a 'Select NAVAID' dropdown and a list of actions: 'Select Action', 'State Conditions', 'Include Reason', 'Include Warning', 'Append Note', and 'Select Times'. The middle panel's 'State Conditions' is selected. To the right of these panels are three additional dropdown menus: 'VORTAC' (with options NDB, DF, TACAN, VOR, DME, VOR/DME, ILS), 'NDB Name', and 'In Service' (with options Out of Service, Unmonitored, Unserviceable, Commissioned, Decommissioned, Unusable, Unreliable, Not Available). Below these is a section for 'Effective From' and 'Effective Until' with options: 'Until Further Notice', 'Specific Times', 'Specific Holidays', 'Day (Sunrise to Sunset)', and 'Night (Sunset to Sunrise)'.

QIXAS NDB at ILS Outer Marker Compass Locator OTS 1 of 2

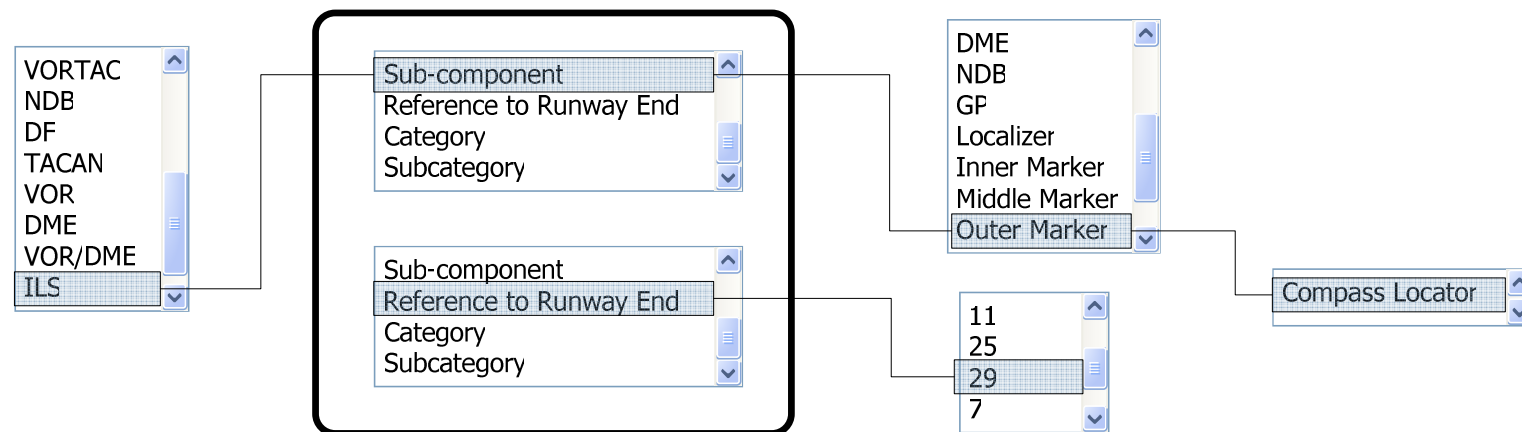
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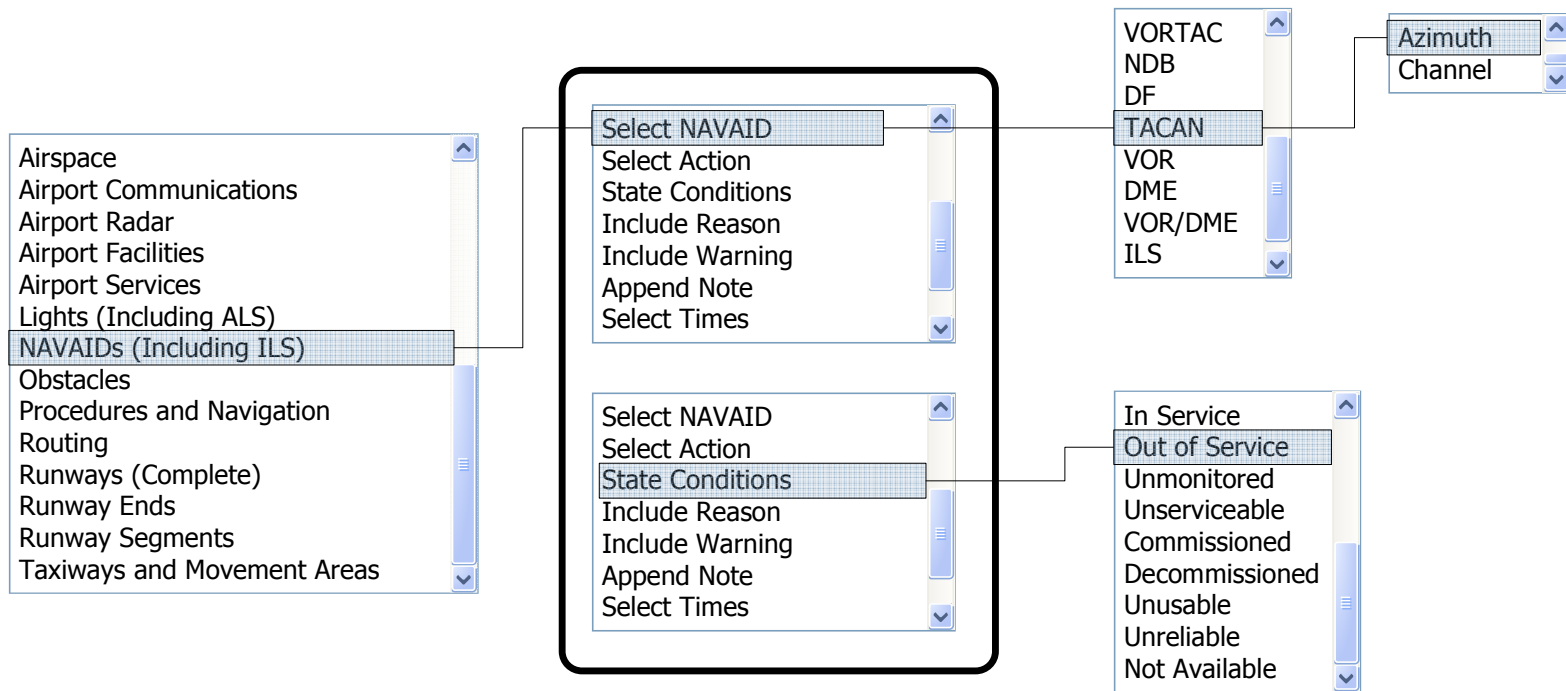
GNV 09/047 GNV 29 WYND5 NDB/ILS LO OTS WEF 0709051100-0709051700



QIXAS NDB at ILS Outer Marker Compass Locator OTS 2 of 2



!LOZ 09/006 LOZ TACAN AZM OTS



QNNAS TACAN Azimuth OTS

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IMCB 12/010 MCB VOR UNUSBL 174-333 BYD 5NM 334-173 BYD 5NM BLW 17000

Airspace

Airport Communications

Airport Radar

Airport Facilities

Airport Services

Lights (Including ALS)

NAVAIDs (Including ILS)

Obstacles

Procedures and Navigation

Routing

Runways (Complete)

Runway Ends

Runway Segments

Taxiways and Movement Areas

Select NAVAID

Select Action

State Conditions

Include Reason

Include Warning

Append Note

Select Times

Select NAVAID

Select Action

State Conditions

Include Reason

Include Warning

Append Note

Select Times

Select NAVAID

Select Action

State Conditions

Include Reason

Include Warning

Append Note

Select Times

VORTAC

NDB

DF

TACAN

VOR

DME

VOR/DME

ILS

In Service

Out of Service

Unmonitored

Unserviceable

Commissioned

Decommissioned

Unusable

Unreliable

Not Available

Inbound

Outbound

Eastbound

Westbound

Leg Type

First Bearing

Second Bearing

Range beyond unusable in NM

Altitude Restriction

Below

Above

17000

QNVAS VOR U/S

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